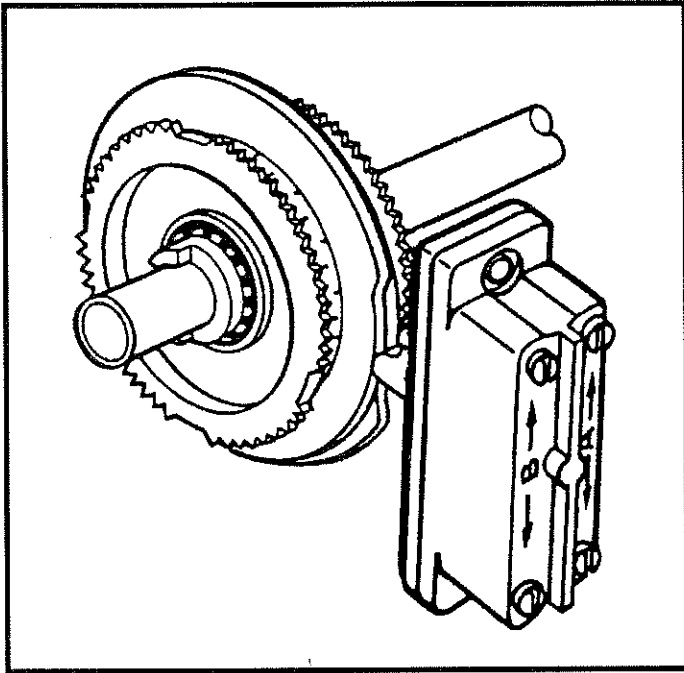


AMETEK[®]
PATRIOT SENSORS

Section 1980S

Gemco[™]

Micro-Adjust Rotating Cam Limit Switches



DESCRIPTION

The Gemco Rotating Cam Limit Switch has been developed to meet all requirements for an industrial multipurpose cam-actuated limit switch in applications where precise repetitive sequential, automatic, or semi-automatic operations are required in control circuitry. When motion is expressed in shaft rotation, either through a roller chain, gear train, or directly, the Gemco Rotating Cam Limit Switch makes it possible to open or close independent circuits at any desired angular position of the input shaft. Any closed circuit or open circuit from 4° to 356° is obtainable without the use of special cams. All cam settings can be adjusted at any angular position of the cam shaft.

MAINTENANCE & INSTALLATION

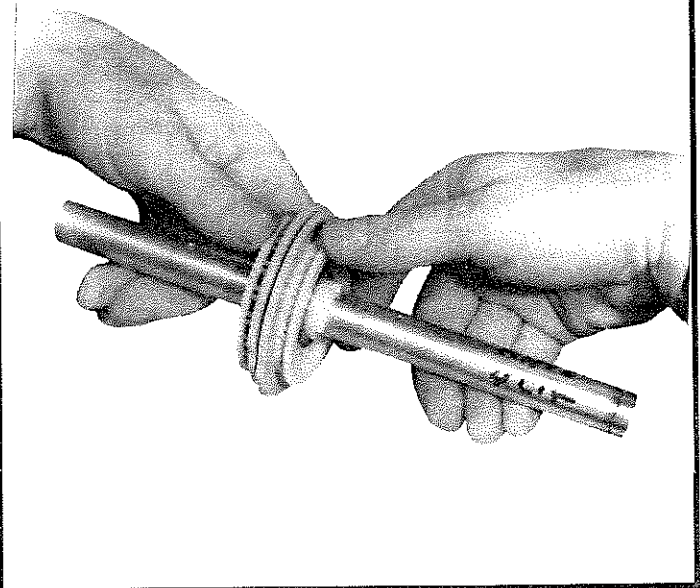
Lifetime sealed ball bearings provide smooth maintenance-free operation and allow mounting of the Gemco Micro-Adjust Rotating Cam Limit Switch in any position.

SUGGESTED SET-UP PROCEDURE

The Gemco Micro-Adjust Cams may be adjusted either before or after installation. The following procedure is recommended for cam adjustment.

1. Mount the assembly and couple shaft driving member with the shaft keyway aligned with the positioning arrow located on the bearing end plate. The machine should be in the start cycle position with all cams set at zero.
2. Turn cam adjustment disc to the desired setting, observing the angular degree position markings on the top of the cam block.
3. Follow the cam setting procedure as described inside the cover of the enclosure.

NO TOOLS NECESSARY!
TO ADJUST CAM SETTING



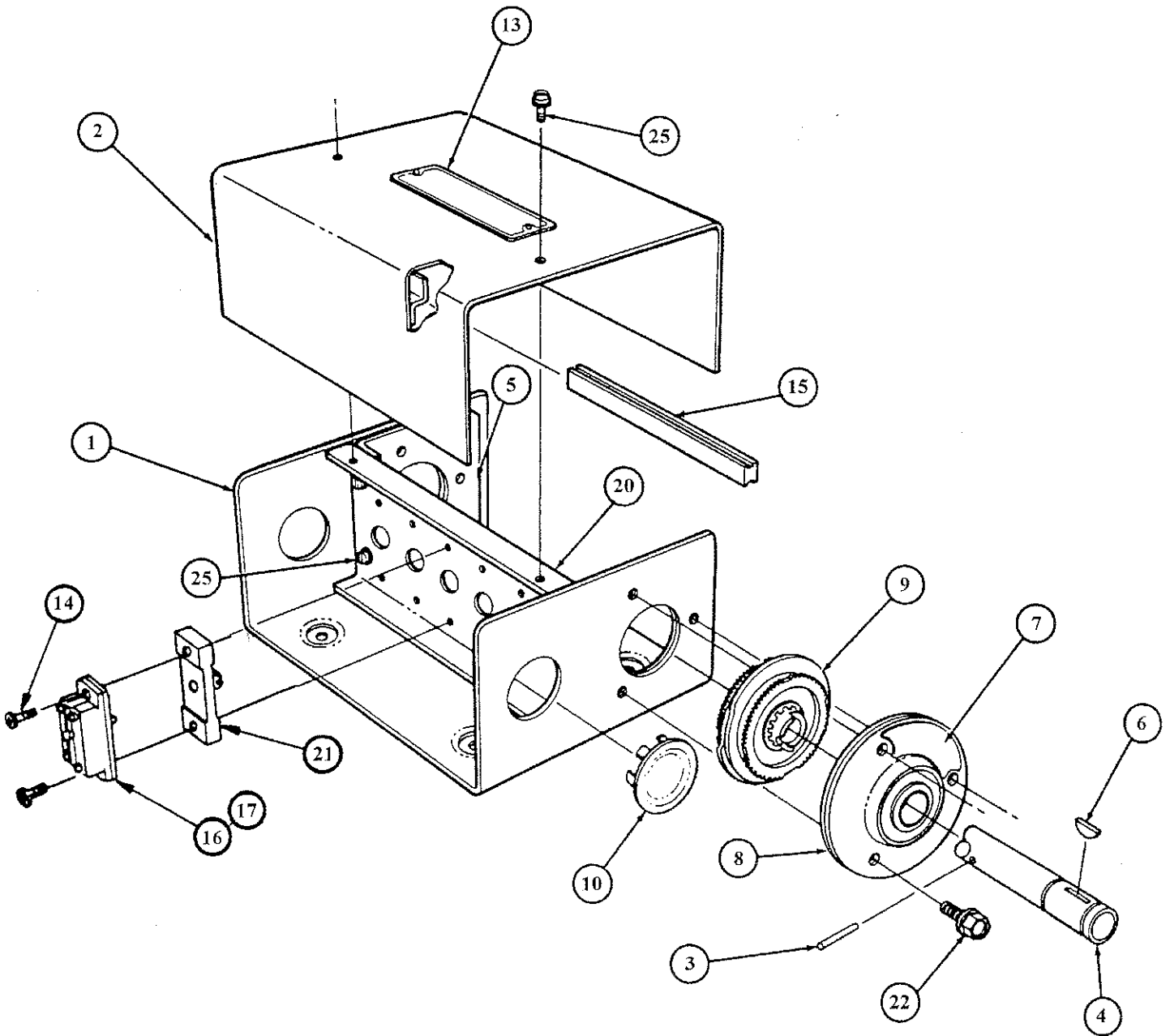


Figure 1
NEMA 1 Style

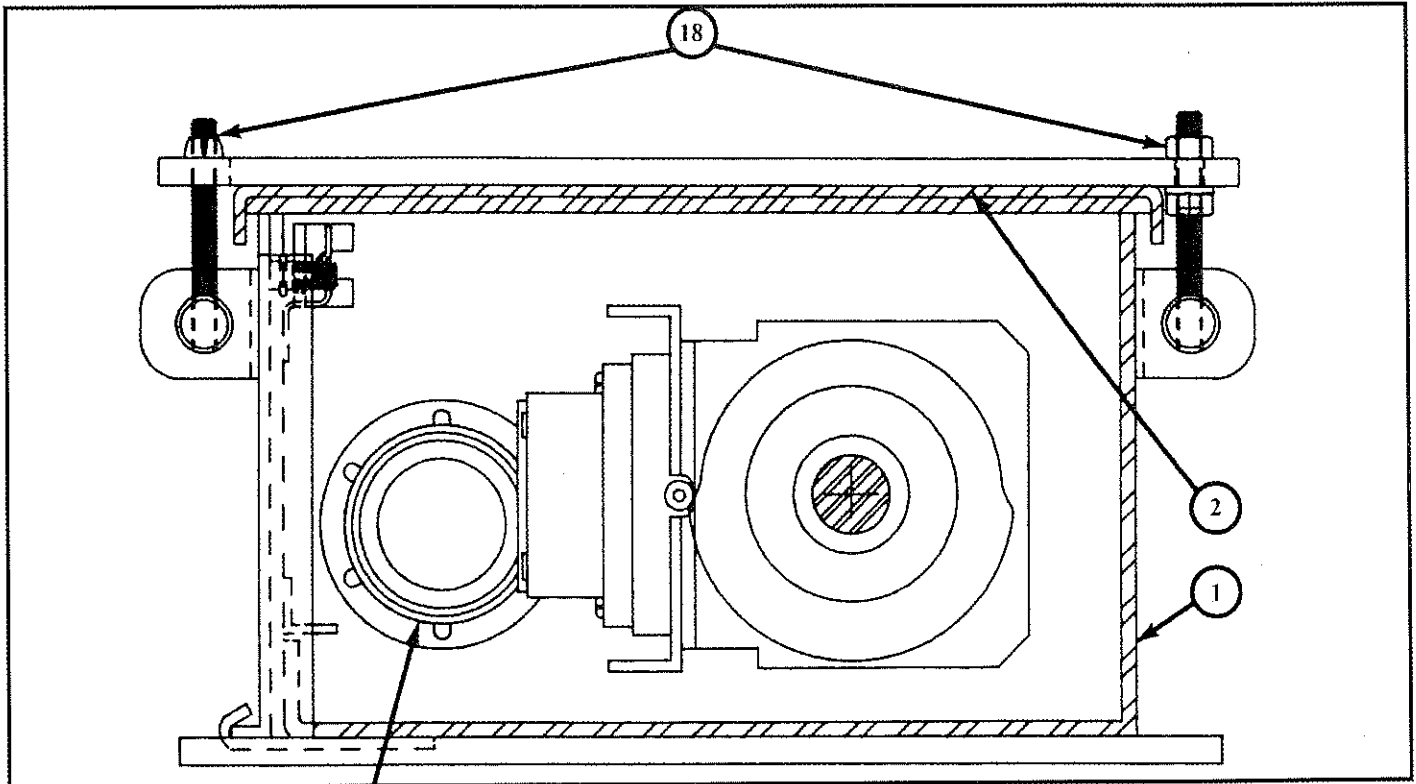


Figure 2
NEMA 4 Style

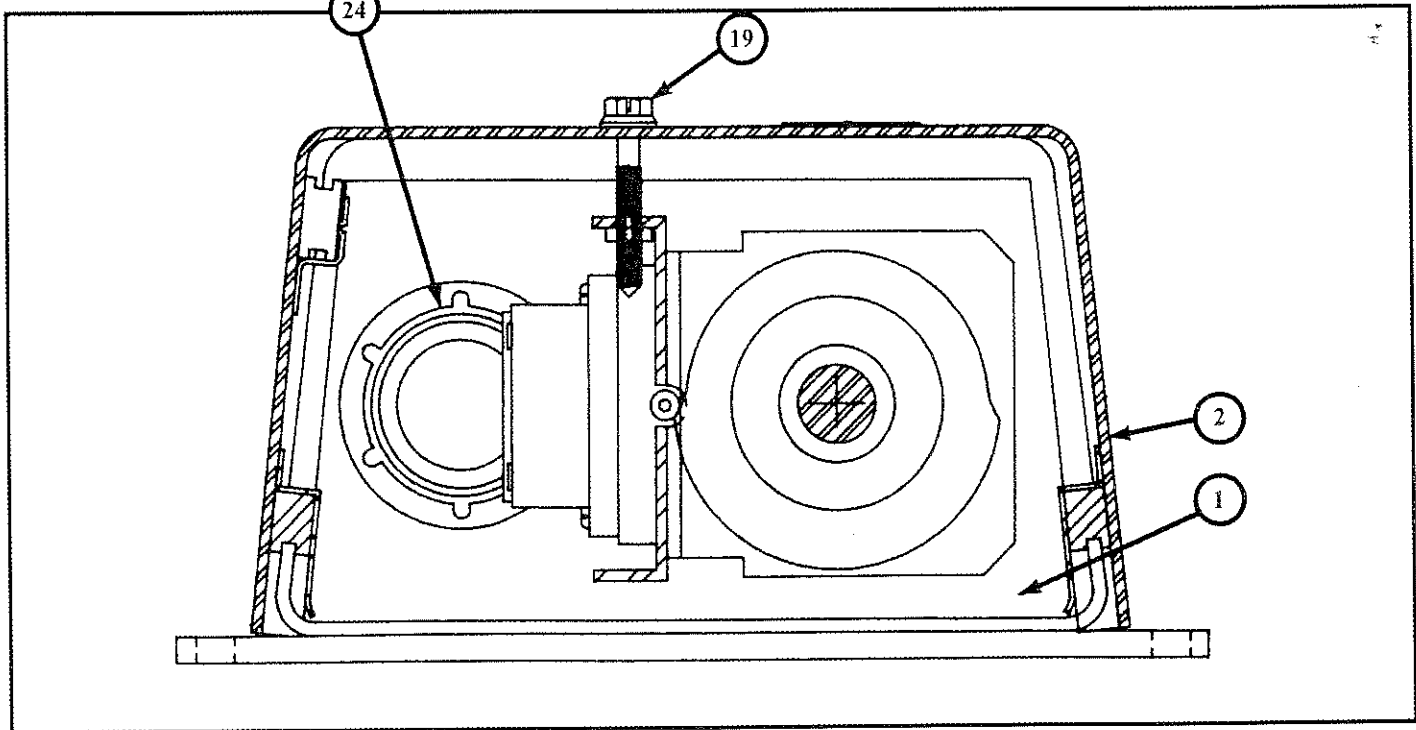
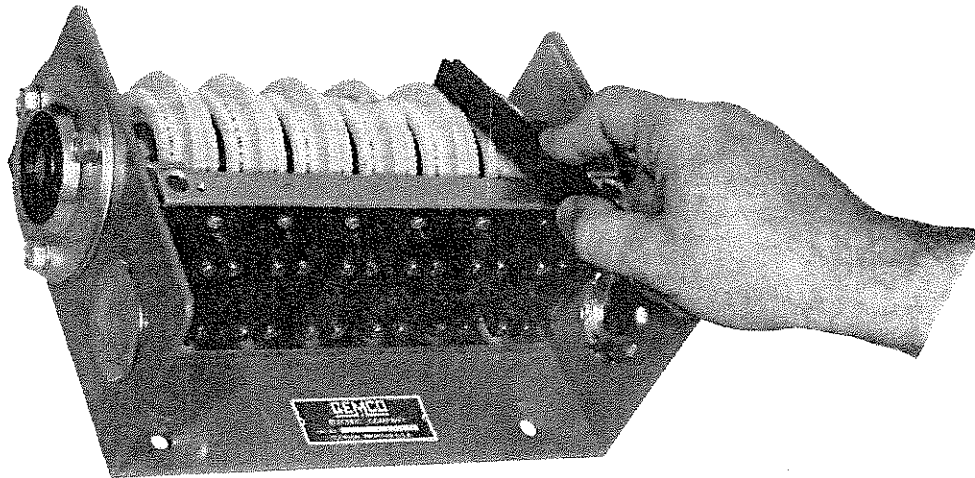


Figure 3
NEMA 12 Style

EASY SETUP PROCEDURE



MOUNTING OF UNIT

Mount the assembly and couple the input shaft to the driving member, with the shaft keyway up and in line with the positioning arrow on the bearing end plate. The machine should be in the start cycle position.

ESTABLISHING CAM SHAFT DIRECTION OF ROTATION

Cam settings should be made with the cam shaft uppermost to the viewer. The picture at the top illustrates this viewing position and also shows the adjusting tool being applied to the adjusting wheel. Shaft rotation is always established off the right end of the unit even when the input shaft, whether direct or through a gear reducer, is situated at the left end. As an aid to designating shaft rotation when gear reducer is used, consult page 10 of the 1980 Catalog Section.

CAM SETTINGS

For clockwise rotation, set "make" angle with the black dial and "break" with the red dial for dwell settings less than 180° or greater. Reverse colors for dwells greater than 180°

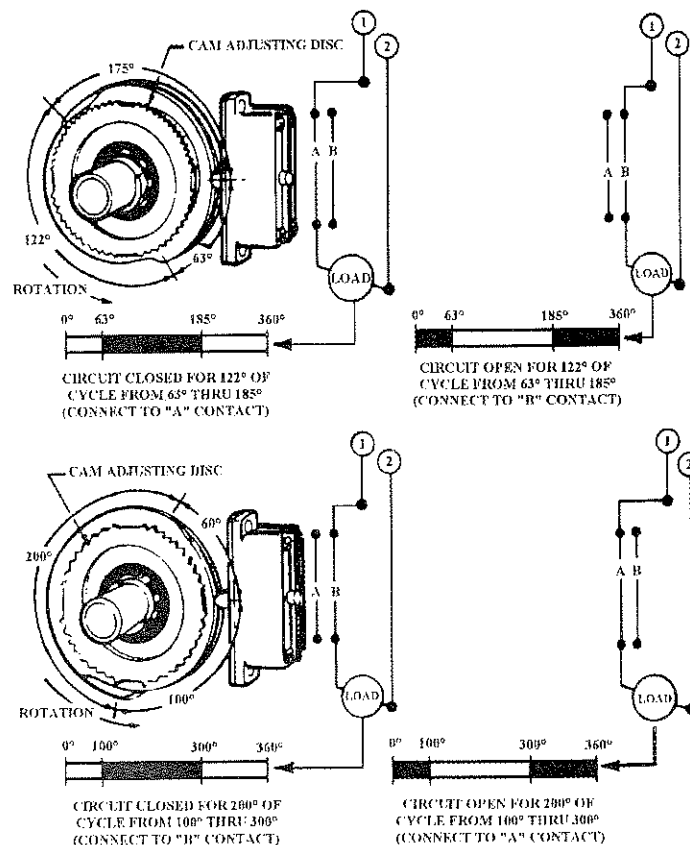
For counterclockwise rotation, set "make" angle with the white dial and "break" with the yellow dial. Reverse colors for dwells greater than 180°

Switch connections should be made in accordance with the illustrations to the right, which, incidentally, are both clockwise rotating examples.

TYPICAL SETTINGS AT BEGINNING OF MACHINE CYCLE

OPEN  CLOSED 

ALL CAMS SHOWN AT ZERO CYCLE POSITION



PARTS LIST SECTION - 1980

When ordering spare parts, specify complete catalog number of Rotating Cam Limit Switch.			
ITEM	DESCRIPTION	QTY.	PART NUMBER
1	ENCLOSURE (Ref. Fig. #1-3 for NEMA Style)	1	Specify Catalog No.
2	COVER (Ref. Fig. #1-3 for NEMA style)	1	Specify Catalog No.
3	ROLL PIN (1/8" x 1")	As Req'd	04564001
4	CAM SHAFT	1	Specify Catalog No.
5	SWITCH SUPPORT BRACKET	2	C0185400
6	WOODRUFF KEY #606	1	04564002
7	DECAL DRIVE MECHANISM	1	NP0011300
8	FLANGE BEARING-NEMA 1, 4, 12 (3/4")	2	04570001
9	CAM ASSEMBLY (1 per circuit)	As Req'd	SD0117800
10	CONDUIT PLUG (NEMA 1)	1	Specify Catalog No.
* 11	INSTRUCTION LABEL (Inside Cover)	1	NP0067700
* 12	INSTRUCTION SHEET	1	NP0067600
13	NAME PLATE	1	NP0010900
14	PAN HEAD MACHINE SCREW (#6-32 X 1")	As Req'd	04560001
15	ADJUSTING STICK	1	P0034600
• 16	SNAP SWITCH S.P.D.T. See Sect. 1950 D.P.D.T.	As Req'd	1950-1-B-A-AO 1950-4-B-A-AO
• 17	SNAP SWITCH S.P.D.T. See Sect. 1950 w/RUBBER BOOT D.P.D.T.	As Req'd	1950-1-B-A-AR 1950-4-B-A-AR
18	COVER LATCH ASS'Y. (NEMA 4) See Fig. #2	As Req'd	Specify Catalog No.
19	COVER CAPTIVE SCREW (NEMA 12) See Fig. #3	As Req'd	SD0169600
20	SNAP SWITCH BRACKET	1	Specify Catalog No.
21	ROLLER FOLLOWER	As Req'd	SD0157100
22	HEX BOLT 5/16-18 X 5/8" w/LOCK WASHER	6	04560003
* 23	CENTER BEARING ASSEMBLY (13+ Circuit)	1	SD0119500
* 24	CONDUIT FITTING (NEMA 4 & 12) See Figs. #2 & #3	1	Specify Catalog No.
25	PAN HEAD MACHINE SCREW w/SEMS WASHER (#10-32 X 3/8")	As Req'd	04560002

* Item not shown on drawing

• It is recommended that snap switches be replaced after fifteen million operations.

AMETEK® PATRIOT SENSORS

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